IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re appl.: **Dunn et al.**

Serial No.: **09/766,062**

Filing Date: **01/22/2001**

For: **Method, system, and program for a platform-independent, browser-based, client-side, test automation facility for verifying Web site operation**

§ Group Art Unit: **2122**
§
§ Examiner: **Yigdall, M.**
§
§ Atty. Docket #: **AUS920000766US1**
§

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By: _____
Joseph R. Burwell, Reg. No 44,468

RESPONSE TO OFFICE ACTION UNDER 37 C.F.R. § 1.111

The following amendments and remarks are offered in response to the Office Action mailed 04/05/2004; a petition for an extension of time is included with this response.

No additional fees are believed to be necessary for this response; if, however, any fees are necessary, please charge Deposit Account No. 50-1888 of Joseph Burwell to cover the cost of the fees.

I. General Remarks Concerning This Response

Claims 1-30 are currently pending in the present application. No claims have been amended, added, or canceled in this response. Reconsideration of the claims is respectfully requested.

II. Summary of Present Invention

A test automation facility for a data processing system is presented which relies on a browser application as a host environment. The browser application has built-in scripting language interpretation functionality and markup language interpretation functionality for parsing and processing script files and markup language documents with embedded scripts. An initial file is loaded into the browser application window to create separate frames within the window, and the separate frames are used by the test automation facility for a variety of purposes. One of the frames contains a test automation facility interface with test case logic for verifying content, data, documents, or files received from a server, whereas another frame is used to present the received data to the user. Another frame can be used as a message logging window.

III. 35 U.S.C. § 103(a)—Obviousness—*Welter in view of Griffin*

The Office action has rejected claims 1-12, 14-20, 22-28, and 30 under 35 U.S.C. § 103(a) as unpatentable over Welter et al., "Method and apparatus for testing web sites", U.S. Patent Number 6,138,157, filed 10/12/1998, issued 10/24/2000, in view of Griffin et al., "Web-based integrated testing and reporting system", U.S. Patent Number 6,442,714 B1, filed 03/17/1999, issued 08/27/2002. This rejection is traversed.

All of the pending independent claims have been rejected, at least in part, over a combination of the disclosure of Welter et al. and Griffin et al.; each of the independent claims has one or

more common elements against which the rejection applies certain portions of Welter et al. and Griffin et al.. However, Applicant asserts that there is at least one element of each independent claim that is not shown in Welter et al. nor Griffin et al. nor provided by a hypothetical combination of Welter et al. and Griffin et al., thereby causing these obviousness rejections to be deficient.

The Office action addresses the first element of claim 1 by referencing Welter et al. and then addresses the second element of claim 1 by referencing Griffin et al.. Independent claim 1 reads as follows:

> 1. A method for operating a test automation facility in a data processing system, the method comprising:
> loading an initial markup language document into a browser application at a client, wherein the initial markup language document initializes a set of browser frames; and
> executing scripting language statements within a first frame to verify contents of a second markup language document within a second frame.

With respect to independent claim 1, the rejection admits that Welter et al. does not disclose the second element of claim 1 by stating:

> Welter does not expressly disclose: (b) executing scripting language statements within a first frame to verify contents of a second markup language document within a second frame.

The rejection then continues by arguing that the second element of claim 1 is disclosed by Griffin et al. by stating:

> However, Griffin discloses a set of frames having scripting language components for testing or verifying a product and directing the user through the testing procedure (see column 4, lines 47-55).
> It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the markup language document verification of Welter with scripting language statements and a set of browser frames, as taught by Griffin, for the purpose of directing the user through the testing procedure.

Assuming *arguendo* that Griffin et al. discloses the feature of "a set of frames having scripting language components for testing or verifying a product and directing the user through the testing procedure" as stated by the rejection, the disclosed feature is not equivalent to the second element of claim 1, which recites the feature of "executing scripting language statements within a first frame to verify contents of a second markup language document within a second frame". The second element specifically recites that a script in the first browser frame executes to verify a document in a second browser frame, and the rejection implicitly acknowledges that Griffin et al. does not disclose this feature because the rejection states that Griffin et al. only discloses executing a script in a frame for verifying a product, even though the claim language in claim 1 is more specific than that. In addition, the rejection of claim 1 does not provide any argument or any explanation about the lack of disclosure in Griffin et al. for the claimed feature. In other words, the rejection clearly ignores certain aspects of the second element of claim 1, even though the obviousness argument in the rejection is presented as if Griffin et al. does disclose the claimed feature.

The motivational statement in the rejection is completely generic with respect to a software testing utility. The motivational statement reads as follows: "... to implement the markup language document verification of Welter with scripting language statements and a set of browser frames, as taught by Griffin, for the purpose of directing the user through the testing procedure." As should be apparent, the motivational statement does not link any particular characteristic from the teachings of Griffin et al. into the teachings of Welter et al.; in other words, there is no argument as to how a specific element from the system of Griffin et al. could be integrated into a specific feature within the system of Welter et al.. In

addition, there is no argument as to why someone would particularly look to the teachings of Griffin et al. for something lacking in the teachings of Welter et al.; one could argue that adding any hypothetical graphical user interface feature to a software testing utility would help "direct a user through the testing procedure".

More importantly, Griffin et al. does not disclose the second element of claim 1 in the portion of Griffin et al. at column 4, lines 47-55, that is referenced by the rejection:

> A user may also select previously initiated tests for execution. FIG. 5 shows a web page, comprising three frames 70, 72, 74, that is sent to the user for one specific test. Frame 70 contains general instructions and links to detailed test procedures. Frame 72 contains links to Perl scripts that step a user through this particular test procedure. Frame 72 also contains a link to a Perl script that allows a user to preview a report containing the test data for their test, as entered in the relational database so far.

At most, Griffin et al. only discloses that the testing procedure employs three frames in a browser window. While this is similar to the embodiment of the present invention that is illustrated within FIG. 2B of the present patent application in which three browser frames are shown, the disclosure of Griffin et al. with respect to multiple frames is not equivalent to the second element of claim 1, which specifically recites the feature of "executing scripting language statements within a first frame to verify contents of a second markup language document within a second frame".

Independent claims 3 and 5 are similar to independent claim 1; claim 1 is directed to a method, whereas claim 3 is directed to an apparatus, and claim 5 is directed to a computer program product. These other independent claims were addressed by the Office action as being analogous to independent claim 1. Hence, Applicant asserts that the applied prior art references are also deficient with respect to independent claims 3 and 5 for the same reasons that were argued above with respect to claim 1.

Dependent claims 2, 4, and 6 recite further limitations. Since the dependent claims incorporate the features of the independent claims, the rejections are similarly deficient with respect to the dependent claims for the same reasons that were argued above with respect to the independent claims.

With respect to independent claim 7, the Office action addresses the first element of claim 7 by referencing Welter et al. and then addresses the second element of claim 7 by referencing Griffin et al.. The rejection then states that "the combination of Welter and Griffin" discloses the third, fourth, and fifth elements of claim 7, although the rejection only references Welter et al. for support in disclosing the third, fourth, and fifth elements of claim 7. Independent claim 7 reads as follows:

> 7. A method for operating a test automation facility in a data processing system, the method comprising:
> loading an initial markup language document into a browser application at a client, wherein the initial markup language document comprises a set of frames;
> loading a second markup language document within a first frame of a browser application window, wherein the second markup language document comprises scripting language statements;
> loading, within a second frame of the browser application window, a third markup language document that was received from a server in response to a request initiated by a user;
> in response to loading the third markup language document, calling a function in scripting language statements within the first frame; and
> verifying contents of the third markup language document using the called function.

The rejection argues that the fourth element of claim 7 is disclosed by Welter et al. by stating:

> (d) in response to loading the third markup language document, calling a function in scripting language statements within the first frame (see Welter, column 8, lines 1-9, which shows analyzing the HTML document based on statements in the configuration script; see also FIG. 6, which shows an exemplary script) ...

Assuming *arguendo* that Welter et al. discloses the feature of "analyzing the HTML document based on statements in the configuration script" as stated by the rejection, the disclosed feature is not equivalent to the fourth element of claim 7, which recites the feature of "in response to loading the third markup language document, calling a function in scripting language statements within the first frame". The fourth element specifically recites that a function in the first browser frame is called after a document is loaded in the third browser frame, and the rejection implicitly acknowledges that Welter et al. does not disclose this feature because the rejection states that Welter et al. only discloses the feature of analyzing a document based on statements in the configuration script, even though the claim language in claim 7 is more specific than that. In addition, the rejection of claim 7 does not provide any argument or any explanation about the lack of disclosure in Welter et al. for the claimed feature. In other words, the rejection clearly ignores certain aspects of the fourth element of claim 7, even though the obviousness argument in the rejection is presented as if Welter et al. does disclose the claimed feature.

More importantly, Welter et al. does not disclose the fourth element of claim 7 in FIG. 6 of Welter et al. nor in the portion of Welter et al. at column 8, lines 1-9, that is referenced by the rejection:

> Process control is then turned over to an operation 211 which takes measures based on the HTTP request and response, analyzes received HTML for expected content and errors using methods such as matching against string values, regular expressions, and calculated values and stores them in a database. Error analysis and matching methods are well known to those skilled in the art.

At most, Welter et al. only discloses that the testing procedure employs a script to verify a document. While this is similar to the present invention, the disclosed feature of Welter et al. is not equivalent to the fourth element of claim 7, which

specifically recites the feature of "in response to loading the third markup language document, calling a function in scripting language statements within the first frame".

Furthermore, the rejection is also deficient with respect to the fifth element of independent claim 7. The rejection argues that the fifth element of claim 7 is disclosed by Welter et al. by stating:

> (e) verifying contents of the third markup language document using the called function (see Welter, column 8, lines 1-9, which shows analyzing or verifying the contents of the HTML document; see also column 8, line 64 to column 9, line 11, which shows further details of the verification procedure).

Assuming *arguendo* that Welter et al. discloses the feature of "analyzing or verifying the contents of the HTML document" as stated by the rejection, the disclosed feature is not equivalent to the fifth element of claim 7, which recites the feature of "verifying contents of the third markup language document using the called function". The term "the called function" refers to the term in the fourth element of claim 7 in which the function was called in response to the loading of the third markup language document, which refers to the third element of claim 7 in which the third markup language document was loaded into a browser frame. The fifth element specifically recites a particular function that has been called after a particular series of events. The rejection implicitly acknowledges that Welter et al. does not disclose this feature because the rejection states that Welter et al. only discloses the feature of analyzing a document from a called function, and the rejection fails to discuss the additional limitations concerning the characteristics of the function that has been called; the claim language in claim 7 is very specific in this respect. In addition, the rejection of claim 7 does not provide any argument nor any explanation about the lack of disclosure in Welter et al. for these specifically recited claimed features. In other words,

the rejection clearly ignores certain aspects of the fifth element of claim 7, even though the obviousness argument in the rejection is presented as if Welter et al. does disclose the claimed feature.

More importantly, Welter et al. does not disclose the fifth element of claim 7 in the portion of Welter et al. at column 8, lines 1-9, which was copied hereinabove, nor in the portion of Welter et al. at column 8, line 64, to column 9, line 11, which reads:

> In FIG. 9, the process 76 of FIG. 2B is illustrated in greater detail. The process 76 begins at 272, and in an operation 274, it is determined whether there are any aborts that occurred within the process 74. If there were, an operation 276 displays and logs an error message. If there were not any aborts, then the process 74 terminated normally to an operation 278, and the process displays and logs the URL and the size of each web page and the time it took to download into a log file. An operation 280 displays and logs the total time for the download in an operation 280. In an operation 281 it is determined whether there are nay alerts. If there were, an operation 282 activates a process. The process would commonly notify a person using a mechanism such as e-mail or pager or cause a user-specified process to start. The process is then complete at 283.

At most, Welter et al. only discloses that the testing procedure employs a script to verify a document. While this is similar to the present invention, the disclosed feature of Welter et al. is not equivalent to the fifth element of claim 7, which specifically recites the feature of "verifying contents of the third markup language document using the called function", wherein the called function is a function with the above-noted characteristics.

Independent claims 15 and 23 are similar to independent claim 7; claim 7 is directed to a method, whereas claim 15 is directed to an apparatus, and claim 23 is directed to a computer program product. These other independent claims were addressed by the Office action as being analogous to claim 7. Hence, Applicant asserts that the applied prior art references are also

deficient with respect to independent claims 15 and 23 for the same reasons that were argued above with respect to claim 7.

The dependent claims that depend from independent claims 7, 15, and 23 recite further limitations. Since the dependent claims incorporate the features of the independent claims, the rejections are similarly deficient with respect to the dependent claims for the same reasons that were argued above with respect to the independent claims.

Examiner bears the burden of establishing a *prima facie* case of obviousness

The examiner bears the burden of establishing a *prima facie* case of obviousness based on the prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). Only when a *prima facie* case of obviousness is established does the burden shift to the applicant to produce evidence of nonobviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985). In response to an assertion of obviousness by the Patent Office, the applicant may attack the Patent Office's *prima facie* determination as improperly made out, present objective evidence tending to support a conclusion of nonobviousness, or both. *In re Fritch*, 972 F.2d 1260, 1265, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992).

Welter et al. and Griffin et al. clearly fail to disclose at least one feature of the present invention as recited within each independent claim, notwithstanding the arguments presented by the Office action, thereby rendering Welter et al. and Griffin et al.

incapable of being used as primary and secondary references as argued by the current rejection. Moreover, a hypothetical combination of Welter et al. and Griffin et al. would also fail to reach the claimed invention of the present patent application. As should be recognized, because both the primary and secondary references in the rejection fail to disclose the claimed features against which the references were applied, and because the references fail to be combinable to produce these claimed features, the rejection fails to fulfill the requirements of a proper obviousness argument.

With respect to the claims of the present patent application, Applicant respectfully submits that it would not have been obvious for one having ordinary skill in the art to have used the applied prior art references to reach the claimed invention. Hence, a rejection of the claims cannot be based upon the cited prior art to establish a *prima facie* case of obviousness. Therefore, a rejection of the claims under 35 U.S.C. § 103(a) has been shown to be insupportable in view of the cited prior art, and the claims are patentable over the applied references. Applicant respectfully requests the withdrawal of the rejection of the claims.

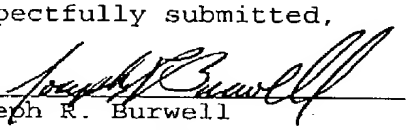
IV. Conclusion

It is respectfully urged that the present patent application is patentable, and Applicant kindly requests a Notice of Allowance.

For any other outstanding matters or issues, the examiner is urged to call or fax the below-listed telephone numbers to expedite the prosecution and examination of this application.

DATE: September 7, 2004

Respectfully submitted,



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